***Review for Test***

**If you can do the following you will have no trouble doing the test on Friday, Dec 9, 2011**

**Part 1: Significant Digits**

1. Round the following values to a certainty of three significant digits.
   1. 50.704 cm d. 0.06909 kg
   2. 8400 min e. 4.2068 s
   3. 0.066 mm
2. Complete the following calculation.  **MAKE SURE YOUR ANSWER HAS THE CORRECT NUMBER OF SIGNIFICANT DIGITS.**
   1. 8.73 km x 2.1 km = d. 22.70 cm/ 0.97 cm =
   2. 7.465 s + 3.5 s + 210 = e. 63.0067 - 5.42 =

f. 22.7 x 10 =

**Part 2: Rearranging equations**

a. y= mx + b , solve for x

b. Pv = nrt , solve for r

c. c= 2a + b solve for a

4

d. v = d solve for t

t

**Part 3: Show all work and record all answers in correct significant digits**

1. Calculate the missing quantities in the table below.

|  |  |  |
| --- | --- | --- |
| v | d | t |
|  | 8.2 m | 4.0 s |
| 62.0 m/s |  | 0.1 s |
| 50.0 m/s | 25.0 m |  |

2. Assuming an average speed of 878 km/h, an airplane has enough fuel to fly for

8.5 h. How far will the airplane fly in this time?

3. The distance from Halifax to Beijing, China is approximately 10577.86 km. A supersonic jet can fly at an average speed of 1475 m/min. How long will it take the aircraft to get Beijing, assuming it has enough fuel? (final answer in hours)

4. Jim drove 8 hours per day for 17.6 days in order to get back home for spring break. His average speed was 1.5 km/ min. How far did he travel?

5. Convert the following using the conversion factor method

1. 66 km/h to m / s
2. 107 km/d to km/h
3. 820 m/s to km/h

**Part 4: Distance- time graphs**

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